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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,331	11/20/2003	Hitoshi Inoue	1232-4678US2	2623

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EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **10/719,331**Applicant(s) **INOUE, HITOSHI**Examiner **Elizabeth Keaney**Art Unit **2882**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/773095 & 10/210,739.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20 November 2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the Divisional Application filed 20 November 2003.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application Nos. 09/773095 and 10/210739, filed on 31 January 2001 and 1 August 2002, respectively.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 36-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Applicant claims a step of selecting between removal and nonremoval of a stripe, and then a further step of removing the stripe is performed. This limitation renders the claim indefinite because it is unclear whether the selecting step is

necessary or if the removal step is unnecessary. As best understood by the examiner, these claims have been interpreted to include only the selecting step.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims are rejected under 35 U.S.C. 102(e) as being anticipated by Yamayoshi (US Patent 6,201,249).

Re claims 22,36,40 and 44: Yamayoshi discloses, in figure 1 and throughout the disclosure, a radiation image acquisition apparatus, comprising:

- an image acquisition unit (4) for spatially sampling a radiation transmission distribution of an object (11) to be imaged through a scattered ray removing grid (column 2, lines 21-22) for removing

scattered rays from said object at a spatial sampling interval and
acquiring an image of the object;

- an image processing unit (7) for removing a stripe pattern originating from the scattered ray removing grid from the image by image processing; and
- a selection unit for allowing selection between removal and non-removal of the stripe pattern by using the image processing unit (column 12, lines 39-48), wherein the selection is performed in accordance with an application purpose.

Re claims 36,40 and 44: The examiner notes that the method steps of these claims merely require the operation of the structure included within claim 22, and are therefore anticipated for the same reasons.

Re claim 23: Yamoyashi discloses the image processing unit removing the stripe pattern by filtering (column 12, lines 50-55).

Re claims 25-28: Yamoyashi discloses the apparatus as shown above. These claims include limitations directed to a function of the selection unit and therefore do not limit the apparatus structurally. Accordingly, these limitations are afforded no patentable weight. See MPEP 2114.

Re claims 29,37,41 and 45: Yamayoshi discloses, in figure 1 and throughout the disclosure, a radiation image acquisition apparatus, comprising:

- an image acquisition unit (4) for spatially sampling a radiation transmission distribution of an object to be imaged through a scattered ray removing grid for removing scattered rays from the object at a spatial sampling interval and acquiring an image of the object;
- an image processing unit for removing a stripe pattern originating from the scattered ray removing grid from the image by image processing; and
- a selection unit for allowing selection between removal and non-removal of the strip pattern by using the image processing unit, wherein the selection is performed in accordance with a portion to be imaged of the object (column 2, line 23).

Re claims 37,41 and 45: The examiner notes that the method steps of these claims merely require the operation of the structure included within claim 29, and are therefore anticipated for the same reasons.

Re claims 30-32: Yamoyashi discloses the apparatus as shown above. These claims include limitations directed to a function of the selection unit and therefore do not limit the apparatus structurally. Accordingly, these limitations are afforded no patentable weight. See MPEP 2114.

Re claims 33,38,42 and 46: Yamayoshi discloses, in figure 1 and throughout the disclosure, a radiation image acquisition apparatus, comprising:

- an image acquisition unit (4) for spatially sampling a radiation transmission distribution of an object to be imaged through a scattered ray removing grid for removing scattered rays from the object at a spatial sampling interval and acquiring an image of the object;
- an image processing unit (7) for removing a stripe pattern originating from the scattered ray removing grid from the image by image processing; and
- a selection unit for allowing selection between removal and non-removal of the stripe pattern by using the image processing unit (column 12, lines 38-49), wherein the selection is performed in accordance with an amplitude of the stripe pattern.

Re claims 38,42 and 46: The examiner notes that the method steps of these claims merely require the operation of the structure included within claim 22, and are therefore anticipated for the same reasons.

Re claim 34: Yamoyashi discloses the apparatus as shown above. These claims include limitations directed to a function of the selection unit and therefore do not limit the apparatus structurally. Accordingly, these limitations are afforded no patentable weight. See MPEP 2114.

Re claims 35,39,43 and 47: Yamayoshi discloses, in figure 1 and throughout the disclosure, a radiation image acquisition apparatus, comprising:

- an image acquisition unit (4) for spatially sampling a radiation transmission distribution on an object to be imaged through a scattered ray removing grid (column 2, lines 21-22) for removing scattered rays from the object at a spatial sampling interval and acquiring an image of the object;
- an image processing unit (7) for removing a stripe pattern originating from the scattered ray removing grid from the image by image processing; and
- a selection unit for allowing selection between removal and non-removal of the stripe pattern by using the image processing unit (column 12, lines 39-48), wherein the selection is performed in accordance with a magnitude of contrast of the stripe pattern (column 11, line 64- column 12, line 2).

Re claims 39, 43 and 47: The examiner notes that the method steps of these claims merely require the operation of the structure included within claim 22, and are therefore anticipated for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamayoshi.

Yamayoshi shows all the limitations as shown above, including the automatic selection of removal or nonremoval of the stripe pattern.

However, Yamayoshi fails to teach or suggest the selection of removal or nonremoval of the stripe pattern performed by an operator.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform the removal or nonremoval of the stripe pattern in accordance with an operation performed by an operator because it allows the operator to have greater control of the process for the removal or nonremoval of the stripe pattern.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- US Patent 5,666,395 discloses an imaging system including a scattered ray grid wherein no stripe pattern is removed from the image.
- US Patent 5,028,784 discloses an imaging system including a scattered ray grid wherein the stripe pattern is removed from the image.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday-Thursday 5:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

emk


EDWARD J. GLICK
SUPERVISORY PATENT EXAMINER